From: Carolyn Yale
Sent: Tuesday, January 13, 2004 4:52 PM
To:
Cc:
Subject: suggestions for ag lands stewardship strategy

I've attached a file below with comments on the stewardship text. I take responsibility for the edits-- with much help from others at EPA, and discussions with DFG and a few folks in the enviro caucus. There are some specific issues which the enviro group would flag:

* In the event that lands are taken out of irrigation through fallowing (episodic, short-term) or "retirement," what becomes of the water? What are the options for use of this water, who decides? (Examples: water district sales/transfer, using income to fund improvements on-farm/in-district; water might be sold for environmental purposes, or to urban sector, or in some cases to other agricultural users.)

* This strategy is intended to address agricultural lands which are not (we have been told) being covered in the watershed management strategy. However, the ag lands strategy really doesn't address activities which need to occur on a larger/collective scale (e.g., riparian corridor restoration, water quality management... long list). Since "watershed-level" planning and projects are a necessary component of ag lands stewardship, where should the text go?

* This is probably the best place to address agricultural drainage management, but the treatment could be expanded.

The file:

(See attached file: ag lands stewardship enviro.doc)

Carolyn Yale, Ph.D.
US EPA, WTR-3

EP1/14/04

Agricultural Lands Stewardship

(comments from EPA, shared with Enviro Caucus)

Agricultural lands stewardship means conserving natural resources and protecting the environment using private farms and ranches that are in production. Agricultural lands stewardship also protects open space, wildlife habitat, and the traditional characteristics of rural communities. Moreover, it helps landowners maintain their business rather than selling land to developers under pressure from urban development. Through agricultural lands stewardship, farmers and ranch landowners – the steward's of the state's agricultural lands – can produce public "environmental goods" in conjunction with the food and fiber they have historically provided while keeping land in private ownership. (Comment: will readers understand that this applies to grazing lands?)

Examples of Stewardship Practices

Wetland Restoration - Wetland acreage improves water quality by filtering out pollution and sediments. It also serves as a flood control mechanism by slowing the flow of water. Healthy wetlands are indispensable for recharging underground aquifers and providing specific wildlife habitat.

Shallow-Water Wildlife Areas - Shallow water areas developed to provide habitat and water for wildlife. Temporary rice field habitat also provides resting and feeding grounds for waterfowl and shorebirds and related terrestrial species. Rice field flooding speeds the decomposition of rice straw, reduces air pollution, helps control crop disease, improves soil fertility and helps with the decomposition of agricultural chemicals.

Windbreaks – Rows of trees or shrubs along field boundaries helps with soil erosion control, soil moisture conservation, crop protection, livestock shelter, wildlife habitat, drainage water reduction down-slope, and carbon sequestration.

Irrigation Tail Water Recovery – Collection, storage and transportation facilities to capute and reuse irrigation runoff (tail) water that benefits water conservation and off-site water quality.

Background

Agricultural Land Stewardship is focused on agricultural land as defined by the California Land Conservation (Williamson) Act, which limits this type of land use to cropped and grazed lands. Other resource-based land uses, such as forestry and mining, are addressed by the Watershed Resources Management Strategy. (Observations: Some ag stewardship activities need to be conducted at a larger-than-farm level—for instance, riparian corridor protection and management of polluted runoff/drainage. This needs to be addressed here—beef up the watershed discussion in the ag lands strategy, or expand the scope of the watershed resources management strategy. Also, if you do include grazing lands, will this be evident to readers from the "ag lands" topic heading?)

The goal of agricultural lands stewardship is to implement a strategy for sustainable agricultural practices and economic return. These private grazing lands and farmlands are part of the watershed and can be managed for floodplain functions, water

management strategies for urban runoff (what does this mean???), ecosystem and wildlife habitats, storage, conveyance and conjunctive use. Agricultural lands stewardship also protects open space and the traditional characteristics of rural communities. Moreover, it helps landowners maintain their lands and avoid conversion to urban development.

Agricultural lands stewardship can be part of a regional strategy of growth management and integrated resource management planning to ensure that the productive farmlands, with added environmental values, will not be lost to inappropriate urban development. It provides the rural counterpart to urban efforts to encourage more water efficient development patterns of land use. Fragmentation of agricultural lands by development can decrease their productivity and harm the ecosystem.

Agricultural lands stewardship is an integral component of regional integrated resource planning which includes best management practices and actions to protect the health of environmentally sensitive lands, water quality, and water for wetland protection and restoration, including riparian reforestation and management projects. Two examples are conservation tillage and cover crops, both of which provide off season habitat for wildlife. (This would be a good place to introduce watershed planning and implementation.)

Stewardship Practices cont'd.

Filter Strips, Grassed Waterways, Contour Buffer Strips - Purpose of these practices is to reduce erosion and provide water quality protection with some wildlife benefits depending on management.

Conservation Tillage – Increases infiltration and soil water conservation, reduces erosion and water runoff, sequesters carbon, improves soil ecosystem and habitat quality.

Noxious Weed – [need data]

Riparian Buffers - Areas of trees, shrubs, and grasses located next to streams or drains that filters runoff by trapping sediments, nutrients, and pesticides. Riparian buffers also provide wildlife habitat.

Livestock Access - Restricts or controls livestock access to surface waters to reduce sediment and nutrient non-point source pollution. Could you cite NRCS (or other) manual

There are many ways that agricultural lands can be managed~~, and~~ In some cases, ~~temporary or permanent land retirement are the chosen strategies~~ lands may be temporarily or permanently removed from irrigation due to low productivity or drainage problems, or simply to generate income from the water sales. For example, temporary ~~retirement or~~ land fallowing is a drought or water banking strategy which does provide financial compensation. The land owner participates in temporary water reallocation management. (Comment: might expand on using income to fund conservation/ stewardship measures. Strategy needs to settle on terms for "land retirement" as it now occurs in text.)

Land retirement (cessation of irrigated crops) may be used as an agricultural lands stewardship depending on site-specific conditions, and landowner and community

interests. In some areas, permanent land retirement can address poor~~, in fact, land uses that change from irrigated crops because of~~ soil quality and drainage problems. ~~effects on water quality to other~~ Alternative uses~~, such as~~ for these lands include grazing, dry land farming for saline tolerant crops or wildlife refuges. (Paragraph re-ordered.)

Current Agricultural Lands Stewardship Initiatives

~~Agricultural lands stewardship addresses environmental and land use problems that increasingly cannot be efficiently addressed through regulatory programs or land retirement programs. There is a growing belief that governmental acquisition or land retirement programs can only address a small portion of agricultural lands.~~ Comment: This paragraph is problematic for a number of reasons, which I won't go into. I recommend omitting it. If you want, say something about the emphasis on voluntary participation without the counter-linkage to regulation, land retirement, etc.

Comment on the initiatives box: How certain are the CF ERP grants? Don't include unless you get sign-off from ERP/BDA. RE NRCS/Conservation Security Program (CSP): No appropriation yet; the rule has just been published in the Federal Register (January 2, 2004), with comments due by March 2. Make clear this is proposed. Also, you have omitted reference to Resource Conservation District and Cooperative Extension Service activities.

The agricultural lands stewardship is not a new concept; in fact, it has been practiced and encouraged by the United States Department of Agriculture (USDA) through the Natural Resource Conservation Service (NRCS) and other entities for many years. It is a strategy increasingly considered by governmental and nongovernmental organizations for protecting natural

Initiatives that Exemplify Agricultural Land Stewardship Strategy

CALFED Ecosystem Restoration Program's Proposed Working Landscapes Grants. Will support multi-landowner, projects that integrate wildlife habitat with agricultural production on private lands.

US Natural Resources & Conservation Service's (NRCS) New Conservation Security Program. Offers incentives and rewards to ~~growers~~ farmers and ranchers who implement resource conservation plans for parts or all of their lands.

CA Department of Water Resources (DWR) Flood Protection Corridor Program. Grants for nonstructural flood management that enhances wildlife habitat and/or protects agricultural uses on private lands.

CA Department of Fish & Games (DFG) Private Lands Management Program. Offers ranchers and farmers an opportunity to increase their profits by improving habitat for wildlife through fishing and hunting.

resources. There is a range of categories of private and public programs and initiatives to implement the concept of agricultural lands stewardship (see box). There is also a range of amount and dependability of funding and financing for these programs.

Many public programs provide technical assistance for implementing new strategies from what crops to plant to how to plant, cultivate and irrigate. Other technical assistance includes friendly farming techniques for wildlife and aquatic ecosystems. Additional types of programs are soil, water and habitat conservation planning – plans which identify the suitable areas for farming and habitat management - which may include financial incentives. Urban planning programs are used to avoid agricultural land fragmentation, permanent conversion of valuable agricultural land or impacts from urban development. And finally, there are programs to retire agricultural use for wetlands and other wildlife sensitive lands, but remaining in private ownership and stewardship.

Three examples below describe stewardship strategies including "conservation planning" program, an incentives program, and land retirement program:

(Comment: EPA and the State Water Resources Control Board/Regional WQCBs administer grant programs ("watershed" and "nonpoint source," for both assessment/planning and implementation) to promote stewardship for water quality and related benefits. These could be identified here, or placed in another strategy and cross-referenced here.)

California Bay-Delta Program –

(Comment: I believe this text presents positions of the subcommittee but distorts the BDA commitments on "working lands" and promises more than the Authority has committed to deliver. I strongly recommend that BDA staff familiar with the BD Program work plan review this draft for accuracy.)

California Bay-Delta Program Working Lands Management

The working landscape is defined as an economically and ecologically vital and sustainable landscape where agricultural and other natural resource-based producers generate multiple public benefits while providing for their own, and their communities', economic and social well-being.

An example of multi-objective conservation program strategies that incorporate agricultural lands stewardship is the state and federal initiative, California Bay-Delta Program. The program supports "working lands management" strategies using public and private partners to improve or maintain their lands and water resources in ways that: (1) provide greater water supply flexibility to state water managers; (2) help meet ecological health goals; (3) yield economic returns on investments; and, (4) provide tax revenues that support their local communities. (Points 3 and 4 are perhaps the subcommittee interests, but are not codified in the CALFED Program.)

The Bay-Delta Public Advisory Committee (BDPAC) established the Working Landscapes Subcommittee to advise the BDPAC in the formulation of a working lands management approach for Bay-Delta Programs. The Working Landscapes Subcommittee developed recommendations on how private land owners and operators can receive support and, or funding for integrating lands that are in agricultural production with Ecosystem Restoration Program goals and objectives. The subcommittee identified sources of funding ~~to be~~ which could be allocated to projects that assist farmers in integrating agricultural activities with ecosystem restoration.

The Working Landscape Subcommittee seeks to provide the BDPAC with creative and practical strategies that: (1) enhance the sustainability of California agriculture; (2) provide for participation of local communities, landowners and managers; and, (3) significantly contribute to the fulfillment of and in accordance with the Bay-Delta Program Record of Decision to restore ecological health and improve water management for beneficial use of the Bay-Delta system while minimizing impacts to agriculture.

The Farm Security and Rural Investment Act of 2002- The reauthorized national Farm Bill 2002 provides several new and traditional agricultural conservation programs that exemplify an agricultural lands stewardship strategy to conservation. (Alternative perspective, replacing introductory sentence: "The 2002 Farm Bill is the most significant commitment to conservation program funding and support in the nation's history.") ~~All~~ The Conservation Title programs are voluntary and include financial ~~incentives~~ and technical assistance and rewards for the ~~installation~~ implementation of conservation practices to restore and protect agricultural land, water quality, habitats, and natural resources. ~~technical assistance, and set-aside payments, the latter including both temporary and permanent set-asides for various purposes.~~ California's Proposition 50, the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002, provides that not less than $20 million is "allocated for projects that assist farmers in integrating agricultural activities with ecosystem restoration." (Water Code section 79550(e)). These funds could be used as "matching funds" with the Farm Bill, thus leveraging state money with federal resources. (Comment: check Farm Bill programs for which state funding qualifies as match; we believe it is limited to CREP and Farmland Protection. Other programs require a producer match.) These programs place strong emphasis on watershed and floodplain protection, water conservation and water quality, habitat enhancement, agricultural land protection and soil erosion control.

Central Valley Project Improvement Act Land Retirement Program – One of the provisions of the 1992 Central Valley Project Improvement Act authorized purchase from willing sellers, of agricultural land and associated water rights and other property interests which receive Central Valley Project (CVP) water. All lands selected for retirement will likely be located south of the Sacramento-San Joaquin Delta, in locations

where drainage conditions and water quality are poor. The program is expected to retire a total of about 100,000 acres of irrigated farmland.

The U.S. Bureau of Reclamation (Reclamation), in partnership with the U.S. Fish and Wildlife Service and the U.S. Bureau of Land Management are the responsible Federal agencies for implementing the CVPIA Land Retirement Program. These agencies initiated the Land Retirement Demonstration Project to address concerns about the scope and degree of potential impacts of retirement on wildlife, drainage volume reduction, socio-economics, and overall cumulative effects of changing irrigated lands to non-irrigated use.

Potential Benefits

Regional integrated resource planning - Regional integrated resource planning for environmentally friendly, socially acceptable and cost-effective strategies can benefit from agricultural lands stewardship strategies. This synergistic approach can address multiple water and resource objectives to produce numerous benefits, such as water use efficiency projects stretching limited water supplies, reduced loads of contaminants, sustained agricultural economy and improved aquatic habitat.

Examples of Agricultural lands Benefits: tbpDWR

- Yolo By-pass
- Consumnes
- Sutter
- others

Watershed management strategies – Watershed management is one ecosystem-based vehicle for carrying out the Agricultural Land Stewardship strategy. A watershed approach helps provide for integrated assessment and coordinated activities where the efforts of single landowners may not be effective— for example, managing polluted runoff or protecting a riparian corridor. ~~It is not the only vehicle, however. Neither do~~ However, ~~watershed management efforts may not always take an Agricultural Land Stewardship approach. For example,~~ some specific watershed projects may focus on only one resource objective, such as fuel-load management; ~~in this example~~, in such cases, a watershed ~~management~~ project can becomes a component of an Agricultural Land Stewardship strategy. Watershed management approaches and agricultural land stewardship share ~~What they have in common, though, is~~ an emphasis on cooperation among landowners and government agencies, private land stewardship, integration of goals and actions, the involvement of multiple landowners, both public and private, and the achievement of multiple resource benefits. Such strategies for agricultural and grazing uses include water quality improvement by not discharging drainage to a surface water body, irrigation efficiencies which reduce runoff, and avoiding pollutants entering groundwater; Growers may establish riparian corridors, filter strips, grassed waterways or contour buffers between agricultural fields and grazing lands to filter runoff into streams or water bodies. (Comment: the distinction between watershed management and ag lands stewardship is not sufficiently clear.)

Another benefit of agricultural lands stewardship is its cost effective ways of providing diversified and resilient water portfolios with less risk to water uses. For example, by using best management practices that include restored natural resource functions, the ground water can be recharged. (Comment: This could also result from a watershed management approach, so what's the distinction?)

"Smart" land use - Urban land use planners can meet social and urban development needs by strategically protecting agricultural lands for their "soft path" functions for floodplains and watershed, urban runoff, wildlife habitat, and groundwater recharge areas. Agricultural lands managed for these functions can save developers costly infrastructure projects.

Temporary land fallowing - Land fallowing (temporary cessation of irrigation of farmlands) from time to time is part of an agricultural lands stewardship strategy. Fallowing is similar to crop idling or crop shifting or other water use efficiency measures where water is made available by reducing consumptive use. Thus fallowing is part of a flexible system reoperation linked to many other water management strategies. It may be an economic benefit for the landowner as well as the farming community depending on the use of the money paid for this temporary fallowing. Payments to farmers could provide supplement or make up lost income as the result of temporary fallowing that can be used on farm-related investments, purchases and debt repayment. Others ~~farmers~~ may benefit by having use of some of the "saved" water. ~~But~~ For example, urban consumers ~~are the main beneficiaries of~~ can benefit from this potential alternative water supply during severe water short years to avoid economic disruption. (Question the last sentence. What about the environment? Was the text based on Palo Verde ID example? Do we have environmental example?)

Palo Verde Irrigation District Land Fallowing Program Details: Program length: 35 years

- Estimated annual water supply: 25,000 to 111,000 acre-feet* based on 2.3 to 3.5 acre-feet per year for each retired acre
- Estimated program cost to Metropolitan: between $153 and $206 per acre-foot depending on amount of water developed
- Maximum amount of farmland taken out of production in any year: 29 percent or 26,500 acres
- Total farmland in Palo Verde Valley: 91,400 acres
- Payments a farmer will receive for each acre set aside: a one-time payment of $3,170 for signing up and $550 annually in 2002
- Amount of money Metropolitan will invest in local community improvement programs: $6 million
- Amount budgeted for program environmental documentation and other preliminary activities: $500,000

Additionally funds may be invested for local community improvement programs. For instance, Palo Verde Irrigation District Land management, Crop Rotation and Water Supply Program is expected to have an estimated annual water supply of 25 to 111 TAF for Metropolitan Water District. Avoided costs of water supply projects are a benefit of land

fallowing to urban water users. Fallowed lands may be cultivated in subsequent years.

Land Retirement - Permanent land retirement (permanent cessation of irrigation) may be considered for farmlands with drainage problems related to soils that are not suited for irrigation. These retired lands provide opportunities to allocate water to other agricultural lands or other beneficial uses. Permanently retired lands may be managed as dry land farms or upland habitat depending on the goals and terms of the retirement. Some retired land is converted to urban development. Avoided costs of new water supply should also be considered in the costs and benefit analysis of land retirement.

The risk of selenium exposure to fish and wildlife is reduced when irrigation on land in the drainage problem areas is permanently "retired". This reduction in drainage water will reduce the volume that needs management by other methods. Reducing drainage can be achieved through other agricultural lands stewardship strategies although permanent retirement of lands creates an opportunity to establish upland or other habitat for wildlife.

Integrated On-farm Drainage Management - Integrated On-farm Drainage Management (IFDM) is an approach that protects and enhances farmland, wildlife and water resources in drainage problem areas. This approach to the management of agricultural lands affected by saline water and perched water tables has primarily been used on the west side of the San Joaquin Valley. It offers an alternative to retirement of agricultural lands.

The IFDM system manages irrigation water on salt-sensitive high value crops and reuses subsurface drainage and tail water on increasingly salt-tolerant crops. Biological filters, drainage and tail water systems, crop management and salt harvesting, in an evaporation system, improves water use efficiency, provides for the use of concentrated drainage water, and eliminates the disposal of agricultural drainage water. The merit of land retirement depends on site-specific conditions, desires of individual land owners, and desires of the larger community.

(Comment: Both "land retirement"- aka cessation of irrigation—when associated with drainage problems and drainage management are likely to provide "regional" benefits such as reduction of downslope pollution.

Another important comment: In looking at benefits (as well as costs) it's important to think beyond the farm unit. This was acknowledged in the CalFED WUE Program as a basis for providing public assistance—i.e., establishing that there could be a broader interest in producing "benefits." There's a cross-cutting dispute regarding this perspective, however: when should the party responsible for environmental degradation be required to pay for fixing the problem?)

Current California Investment

[to be provided].

Potential Costs

Agricultural land stewardship is promoted as a cost effective way to sustain our agricultural land base while accomplishing complementary objectives, such as resource and water quality protection. ~~an alternative to governmental acquisition through ownership or conservation easements, in part, because it is thought to be more cost effective.~~ Three dilemmas exist for determining potential costs: 1) What are the direct costs for supporting stewardship programs? 2) What are the common cost measurements for a wide spectrum of environmental values? 3) Does current investment in California agricultural lands stewardship represent future costs? (Query: The first sentence in paragraph is confusing; aren't we promoting some easement programs through USDA? So what types of easements are objectionable? The reference to government acquisition is a relic, I suspect, of the ecosystem restoration/habitat debate, but this is confusing here…. Try some more positive text. Also, the CalFED Water Use Efficiency Program went through an economics exercize to distinguish local versus broader costs and benefits which could be informative. Finally, #3 is confusing; what's the intent?)

Developing working lands costs components ~~are~~ is similar to estimating costs of managing lands to avoid environmental impacts such as air and water pollution, or to provide wildlife habitat or secure food and fiber production. Agricultural lands stewardship is a way of doing business and its value as a management strategy should be part of an economic model to measure the economic basis of healthy communities.

Agricultural lands stewardship contributes to the avoided costs associated with urban land use. Not only are there cost savings by avoiding expansion of infrastructure, but there avoided costs for flood damage reduction measures and urban runoff.

The annual costs of managing the lands to avoid environmental impacts have not been quantified accurately. Additional costs may include program development, administration, and mitigation of local and regional socio-economic impacts.

Despite ~~the increasing popularity of~~ interest in land retirement programs for addressing environmental objectives, relatively little comprehensive analysis has been completed on the cost-effectiveness of the permanent land retirement programs. In a study of the potential benefits of land retirement for addressing the drainage problem, Stroh (1991) compares the costs of meeting drainage goals through land retirement to costs for four drainage management schemes: treatment, evaporation, dilution, and ground-water pumping. Findings suggest that land retirement can be a cost-effective solution to meeting a drainage objective, but only under a limited set of conditions (such as high selenium in soils which makes drainage solutions expensive). (Comment: There is surely more recent analysis of potential costs/benefits in the context of the San Luis Unit Drainage Feature Evaluation. Actually, this calculus is complicated by such questions as "who gets the water"; check on update and be clear about the packages of costs and benefits.)

The costs of the federal WRP, CRP and Grasslands Reserve conservation programs offer landowners' financial incentives in the form of rental payments for each acre set-aside for water quality and wildlife benefits. It is estimated that California agricultural lands owners may participate in working lands programs if rents reflected local land values which are $100 to $200 per acre. A new Farm Bill Conservation Security is intended to pay the landowner an annual payment for conservation benefits identified in a conservation plan all or parts of the agricultural operation to address all or some of the identified resource problems. Annual payments are estimated for each landowner to range up to $45,000 per year. (Comment: Isn't it the case that the USDA WRP does not pay for water associated with the land, which can be problematic if you're trying to create or sustain wetlands benefits on irrigated lands..?…This should be identified as an issue. Steve Shaffer has some background information on this.)

Major Issues Facing a Agricultural lands stewardship

Agricultural lands stewardship is an emerging concept that combines conservation and ecosystem restoration goals with sustainable agricultural practices. It is also a private lands management incentive program. Like any new idea or concept, there are major issues of program awareness, state and local policies, funding and stakeholder acceptance. There are perceived problems about mixing economic endeavors with environmental goals and economic markets. Without an increased focus on agricultural lands stewardship that demonstrates to the public its real benefits, comprehensive regional integrated resource planning and management will be more difficult to implement.

1. **Perceived Harm to Agricultural Operations** - There is a perception held by landowners that environmental programs which may help growers to improve habitat which attracts rare, threatened, and endangered species may make the landowner vulnerable to species' taking issues. Thus there is landowner's reluctance to be involved with government agencies, even those that may provide assistance to help compliance with real regulatory requirements. (Clarify reference to government agencies/programs providing assistance.) Environmental concerns of land retirement include land use change and its impact on neighboring agricultural lands and productivity including introduction of new wildlife species, weeds, pests, illegal dumping of refuse; disposition of water and water rights issues; physical resources such as soils, groundwater, surface waters.

2. **Science** – There are a lack of scientific economic, social and environmental studies and monitoring of agricultural lands stewardship to evaluate its merits for ecosystem restoration, water quality, and agricultural economics for large and small agricultural operations. There are conflicting reports about the compatibility or incompatibility of working lands and ecosystem restoration, in part because the management to assure compatibility must be tailored to local circumstances and then monitored and assessed. (Comment: Maybe there's a better explanation for conflicting reports?)

3. ~~Uncertainty of~~ Impediments to documenting Environmental ~~Benefits~~ results - One of the biggest challenges for implementing stewardship programs is the balance between landowners' privacy and the need for accountability. In many situations government agencies and taxpayers doubt that private stewardship can achieve the desired environmental benefit and seek assurances that some landowners consider invasive. There is uncertainty about the real costs which may deplete limited restoration funds for a program that depends on private landowners. There are doubts about to what extent taxpayer support for land stewardship is a better bargain than outright purchase (i.e., land retirement), or a better bargain than doing nothing, in order to obtain the desired environmental gain. (Comment: Is there going to be a recommendation for this? I changed the wording of title because "uncertainty of environmental benefits" is likely to conjure up "scientific uncertainty" for some readers.)

4. Potential Disincentives for Private Landowners – Since institutional regulations and programs are a complex maze and sometimes in conflict, agricultural landowners may be discouraged when developing a stewardship program that is crosscutting and encompassing water and soil conservation with ecosystems restoration, floodplain and wetlands management, water quality and land use planning. The regulations may seem intrusive to the private landowner but essential for those responsible for environmental protection and restoration programs.**[suggestion made to add an example.** Possibly use the example of Elkhorn Slough: NRCS and a group called "Sustainable Conservation" worked with permitting agencies to simplify the permitting process for farmers interested in making watershed improvements through NRCS programs, such as EQIP. This has been in place for roughly five years. For more information, suggested contact is Daniel Mountjoy (NRCS, Salinas office: 831-754-1595.**]**

5. Market based decisions – A common landowner perspective is that the economic return from stewardship, even with governmental resources, often is less than the return from other options for land use, especially when urban development is an option. However, such individual economic decisions—for example, to sell land for development—can lead to land uses which make it all the more difficult for remaining farms in the area to operate.

6. ~~Reality Test~~ – Accountability for environmental results ~~Some landowners doubt that stewardship and its cousin, voluntary compliance, will succeed in their goal of preventing government intervention or serve as an acceptable substitute for regulation, especially where environmentalists don't trust stewardship on its own. Confusion and marginal experience with so-called safe harbor approaches – a concept for providing assurances that incorporating environmental functions into farm operations will not add regulatory risks - may limit participation by landowners.~~ [Comment: at the workshop we agreed that: 1-- the title is misleading; 2—this should be expanded beyond ESA focus. We discussed example of implementing and monitoring water quality measures. (At a farm level, there may be concern regarding regulatory action if wq violations detected, hence preference to conduct and report monitoring at a higher organizational level.) This relates to issue #3 above.]

7. Lack of State Participation and Policy – Agricultural lands stewardship programs are limited partly because, for various reasons, California has traditionally received very little of the funding for USDA Farm Bill's conservation provisions overall relative to its agricultural standing, the value of the threatened resources and the population served. Part of the reason for this inequity has been the relative lack of presence on the part of the state in matching the kinds of programs offered by USDA. **[comment: what is lacking? Comment: accuracy**. It is not true that on the conservation side California does not receive its share; for example, CA receives more EQIP funding than any other state. (Is #7 referring to commodity programs as well as conservation?) With respect to matching funds, this may be true for CREP, but other USDA programs use a producer, not a state match.]

New issue? Need for leadership and organizational expertise at the regional level? (Does this resonate for anyone? E.g., to help implement water quality monitoring, assessment, planning, and implementation of BMPs)

8. Land Retirement – Large acreages of irrigated agricultural land are expensive to purchase and financing can be difficult. Once the land is retired from irrigation, there may be an adverse shift in the local economy. There may be additional maintenance costs to avoid physical environmental impacts, and specific soil and crop management may be required if the lands continue to be farmed without irrigation.

9. Socio-economic Effects – ~~Studies are mixed regarding the effects of stewardship management that includes changing agricultural cultural practices and restoring and integrating ecosystem processes including fluvial and floodplain functions.~~ Some reports suggest that there is loss of agricultural productivity, loss of revenue to the local communities, loss of a way of life, and regional and statewide socio-economic effects. Local and state officials are considering these ~~policy~~ issues. (Comment: If you're trying to suggest that stewardship programs generally are a cause of adverse socio-economic effects, you're undermining the appropriate thrust of this strategy document; delete the first sentence.) ~~At issue~~ One concern is whether land retirement may have an adverse effect on local tax base, community businesses and farm related jobs locally and regionally. And there is a heightened sensitivity when land retirement is proposed in areas where the communities provide labor and other services that inherently have high percentage of low income and disadvantaged groups. Some have suggested that if significant amount of land is retired it may also have a statewide influence on the tax bases, economies, and food production and security. On the other hand, others have provided information and data that suggest larger, external forces may be the primary influence on these negative trends in agriculture.

(Comments: Issue associated with land retirement/effects: Who gets the water and who's responsible for mitigating impacts)

Recommendations to facilitate a working lands strategy to water management

The following recommendations can help facilitate a working lands strategy:

1. Common Ground - The State should collaborate with farmland organizations to provide private landowners access to educational resources through appropriate public and nongovernmental programs that explain and demonstrate the benefits of agricultural lands stewardship and ecosystem restoration.

- Agricultural lands stewardship programs will be only as successful as the landowners who participate in them. Programs can be more effective in protecting a watershed or ecosystem's environmental quality if they ensure that landowners are aware of the impact on the broader watershed or ecosystem.
- Demonstrate that stewardship programs can help landowners be good stewards without compromising landowner rights.
- The program should emphasize that it is voluntary, flexible, and incentive-based strategy.
- Provide "success" stories to resource managers and environmental organization to demonstrate that private stewardship can achieve desired environmental benefits.

(Note applicable to 1 and 2: The SWRCB has a program of "agricultural short courses" focused on water quality practices. I understand pilot has been conducted in coastal Santa Barbara region, and hope is to expand to Central Valley. Contact: Jesse Maxfield; 916-341-5484)

2. Technical Assistance – Identify appropriate State agency to coordinate, implement and provide staff support for landowners participating in multiple environmental goals and local conservation initiatives such as the Department of Conservation's Watershed Coordinator program. The agency should identify opportunities to assist landowners in participating in resource management programs to further institutional coordination, apply for grant funding and facilitate multiple stakeholder planning and implementation. (Comment: Consider also assistance through NRCS, RCDs/ California Association of RCDs)

- Ensure consistent, dependable and adequate funding for stewardship assistance,

"Soft Path" - The water soft path is characterized by wide use of diverse, often decentralized systems. Water supply, treatment, sanitation, and runoff management systems would take much greater advantage of local hydrologic resources (e.g. urban rainwater/stormwater harvesting and aquifer storage recovery systems); use the treatment capacities of floodplains and urban watershed soils and vegetation to much greater stormwater management effect ("green infrastructure"); utilize all manner of wastewater treatment and reclamation systems (including wetlands); and incorporate a high degree of reuse.

especially the USDA Natural Resources Conservation Service, the agency that has traditionally provided this kind of assistance.

- Assist landowners in endangered species issues.

3. Help Landowners Implement Agricultural Lands Stewardship Plans – Greater state participation would direct federal funds toward landowner participation and technical assistance to meet the required permits for an agricultural lands stewardship management program.

- Incentive-based agricultural lands stewardship can complement regulatory requirements by supporting landowners' efforts to be good stewards of natural resources beyond that set by regulation. Most other states are partners with USDA in providing financial and technical assistance for voluntary private landowner-lead conservation.

4. Guidance for Land ~~Purchase and~~ Management – The State should provide leadership in overall state policy for environmental goals including lands suitable for "soft path" water and environmental management as well as sustainable development. (Comment: Examine the statement #4 and bullets. It doesn't hang together. Most of the bullets seem to refer to land retirement or "sust. development" rather than "soft path." Sustainable development has urban growth connotations and seems misplaced in the ag strategy. The next topic is also related to land retirement; whatever we end up saying about "land retirement," let's get through it in one place.)

- Expectations about market driven land use decisions may be unrealistic and more costly for development. The state should coordinate with regional and local government for sustainable and suitable land use.
- Support local use of transfer of development financing programs.
- Develop a finance plan for land retirement. The land purchase price has to be fair and costs associated with the mitigation of all impacts must be considered in developing the program.

5. Social Economic – An evaluation of the socio-economics of land retirement programs should be undertaken including a comprehensive assessment of regional changes in agricultural production inputs, farm income (including income received from land payments), habitat restoration (including increased recreational opportunities), and annual maintenance expenditures. Such a public policy evaluation could include suggested actions for maintaining the economic stability of local community continuity and including concerns related to loss of jobs, tax base, community and food production.

Sources [to be provided]

Regional impacts resulting from land retirement including impacts from reduced agricultural production inputs, impacts from reduced farm income, impacts from income received from land payments, impacts from habitat restoration, and annual maintenance expenditures must be evaluated by the program. The first two are the losses in regional economic activity and the later three are positive regional economic influences.

6. Scientific Studies - Increase scientific studies to assess the environmental, ecosystem restoration and agricultural benefits of agricultural lands stewardship. Continue research on sustainable agriculturally-based economies. Continue monitoring and assessing local and cumulative effects of habitat restoration, improved environmental quality and associated costs, and temporary fallowing and permanent land retirement.